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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,371	02/09/2004	Ivan Tashev	MCS-063-03 (304217.01)	9761
27662 7590 07/28/2008 MICROSOFT CORPORATION C/O LYON & HARR, LLP 300 ESPLANADE DRIVE SUITE 800 OXNARD, CA 93036			EXAMINER LEE, PING	
			ART UNIT 2615	PAPER NUMBER
			MAIL DATE 07/28/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<p><b>Application No.</b> 10/775,371</p>	<p><b>Applicant(s)</b> TASHEV ET AL.</p>	
	<p><b>Examiner</b> Ping Lee</p>	<p><b>Art Unit</b> 2615</p>	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 07 July 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 1-30.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_  
13. ☐ Other: \_\_\_\_\_.

/Ping Lee/  
Primary Examiner, Art Unit 2615

Continuation of 11. does NOT place the application in condition for allowance because: A/D converter is a part of the disclosure, and A/D converter is an element in one embodiment. The claims never exclude A/D converter from the claimed invention. The claims of the instant application are the type of the claims that could add additional elements, such as A/D converter, to the claims. So A/D converter could process the audio signal captured by the microphone array. A microphone captures audio signal. The claimed "audio signal captured by the microphone array" read on the signal immediately output by the microphone array. So preamps process the audio signal captured by the microphone array. In conclusion, 112, 1<sup>st</sup> paragraph rejection in the final office action mailed on 5/9/08 is valid. The filter coefficients read on the claimed parametric information which defines operation characteristics and configuration of the array. As stated in col. 4, lines 18-21, the coefficients are adapted for different hearing situations by changing the directivity of the microphone array. The filter coefficients are being retrieved for the filters (4, 5). See col. 3, lines 39-46. The filters define the directional characteristic of the hearing aid. Different hearing situations, for example, could mean at a very noisy environment, or at a reasonably quiet environment. At a very noisy environment, the microphone array should narrowly direct their direction to the source in order to prevent the microphone array from picking too much ambient noise. At a reasonably quiet environment, the microphone array could have a broad direction in order to capture more sound. It is irrelevant whether the filter coefficients are being calculated at an external device. Arndt also teaches that some signal processing of the audio signal captured by the microphone array is performed at an external device. The paths 18, 17 and 19 all directed to an external device 9. The audio signal captured by the microphone array is directly applied to path 18, and the audio signal captured by the microphone array is indirectly applied to the paths 17 and 19. The claims do not state that the information in the memory is being directly report to the external device. The signal at path 17 or 19 include the filter coefficients because the signal at 17 or 19 is from the filters (4, 5) which are defined by the filter coefficients. If the input to filter 4 is X, and the coefficient is c1. Then the signal at path 17 is a function of both X and c1. So the parametric information, c1, is reported to the external device. It is irrelevant whether the signal is continuously being transmitted to the external device. The argument referring to the limitation "all processing of captured audio signal is performed by the external computing device" has been discussed before under 112, 1<sup>st</sup> paragraph rejection. Secondly, the external device 9 in Arndt performs the measurement and evaluation, that are the all audio signal processing performed by the device 9, in accordance with the parametric information reported to the external device 9 through paths 17 and 19. The specification and the drawing as originally filed show that the external device performs signal processing on signals after the preamp and/or ADC. As stated in the specification as originally filed, for example, AEC, is being performed at the external device. However, the claimed "audio signal captured by the microphone array" read on the signal immediately after the microphone array, immediately after the pre-amp and immediately after the ADC. For claim 14, the filter coefficients are supplied to filters 4 and 5 automatically. The signals at path 17 and 19 inform the external device what the current configuration is. So the microphone arrays automatically determines the current configuration upon being coupled to the external computing device. According to definition, "determine" means to settle or to end, so the filters automatically settle to the filter coefficients supplied from the memory. Since the signals at paths 17 and 19 are function of both the audio signal captured by the microphone and the filter coefficients at the filters (4, 5), the current configuration is reported to the external device through signals at paths 17 and 19. One can also look at Arndt at another way. Without the signals from paths 17 and 19, the external device only has the input from the microphones. Then what? how can the external device determine the new filter coefficients if the only input is directly from the input microphones? The signals at paths 17 and 19 provide the signal representing the current configuration (based on the filter coefficients at filters 4 and 5). The external device bases on the input (at path 18) of the filters and the output of the filters (from paths 17 and 19) to determine whether the coefficients need to be adjusted. The external device (9) has an audio processing software automatically performs all the processing necessary for measuring and evaluating. Applicant may have different definition on what the operational characteristics and configuration of the array are in the specification, however, those definition has not been positively and explicitly state in the claims. Therefore, those definition will not be considered as a part of the claims.